R E P O R T R E S U M E S

ED 010 435 04

CONFERENCE FOR VOCATIONAL TEACHER EDUCATORS ON NEW MEDIA OF INSTRUCTION. FINAL REPORT.

BY- PAYNE, W. VINCENT SHERARD, AUSTELL O.
TUSKEGEE INST., ALA.

REPORT NUMBER BR-6-2224 PUB DATE AUG 66
GRANT OEG-2-6-062224-0723
EDRS PRICE MF-$0.18 HC-$2.76 69P.

DESCRIPTORS- *CONFERENCES, *TEACHER EDUCATION, *INSTRUCTIONAL INNOVATION, *VOCATIONAL EDUCATION, *MEDIA SPECIALISTS, EDUCATIONAL RESOURCES, PROGRAMED INSTRUCTION, EDUCATIONAL TELEVISION, TUSKEGEE, ALABAMA

A 1-WEEK CONFERENCE WAS HELD TO STIMULATE INTEREST IN AND PROMOTE THE UTILIZATION OF NEW MEDIA THROUGH A SERIES OF ADDRESSES, DEMONSTRATIONS, DISCUSSIONS, AND SMALL-GROUP WORK SESSIONS. THESE ACTIVITIES WERE CARRIED OUT UNDER THE LEADERSHIP OF AUTHORITIES IN THE FIELDS OF AUDIOVISUAL EDUCATION AND COMMUNICATION THEORY. THE CONFERENCE PROGRAM WAS CONCERNED WITH EDUCATIONAL TELEVISION, PROGRAMED INSTRUCTION, 8 MM SINGLE-CONCEPT FILMS, FILMSTRIPS, TAPE RECORDINGS, SLIDES, OPAQUE PROJECTIONS, AND OVERHEAD TRANSPARENCIES. THE PARTICIPANTS WERE 47 REPRESENTATIVES OF STATE BOARDS, TEACHER EDUCATION PROGRAMS, AND RELATED AREAS. THE RESULTS INDICATED THAT (1) INTEREST IN THE FIELD HAD BEEN STIMULATED AND (2) AN AWARENESS OF NEW MEDIA AVAILABILITY AND VALUE HAD BEEN DEVELOPED. (RS)

ED010435

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office of Education
This document has been reproduced exactly as received from the person or organization originating it. Points of view or opinions stated do not necessarily represent official Office of Education position or policy.

FINAL REPORT

Project No. 6-2224

Grant No. OEG-2-6-062224-0723

CONFERENCE FOR VOCATIONAL TEACHER EDUCATORS ON NEW MEDIA OF INSTRUCTION

August 1966

U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

Conference for Vocational Teacher Educators on New Media of Instruction

Project No. 6-2224
Grant No. OEG-2-6-062224-0723

W. Vincent Payne
Austell O. Sherard

August 1966

The research reported herein was performed pursuant to a grant with the Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

Tuskegee Institute
Tuskegee Institute, Alabama

CONTENTS

	PAGE
...DUCTION	1
... .	1
... .	6
...SION	24
...USIONS, IMPLICATIONS, AND RECOMMENDATIONS	27
...Y	28
...DIX	29

INTRODUCTION

Considerable progress has been made in the development of educational media in recent years. Means by which learning may be increased considerably in shorter lengths of time have been made available through programmed instruction, 8 mm single-concept films, 16 mm films, filmstrips, tape recordings, slides, educational television, phonograph recordings, opaque projectuals, overhead transparencies and other media. There is evidence that these media are effective in areas of education involving skills, as well as other areas. They have been used in this regard in the armed forces, industry, and educational institutions.

Although the new media of education are available, they are not being used fully by teacher educators. Their utilization is particularly important to vocational and technical teacher educators because of the nature and quantity of content to be learned in these areas.

Washington Institute proposed to conduct a one-week conference for vocational and technical teacher educators on the new media of instruction for fifty participants comprised of representatives from agricultural education, home economics education, office education, technical education, and trade and industrial education. They were drawn primarily from the Southern Region of the United States, Puerto Rico, and the Virgin Islands.

The specific objectives of the conference were to (1) develop an understanding on the part of vocational and technical teacher educators of the availability and value of the new media of instruction, (2) develop within the participants of the conference the ability to select and use effectively the educational media in respect to accepted principles of teaching and learning, and (3) develop on the part of the participants the ability to utilize the results of research conducted on the use and development of the new media in vocational and technical education.

METHOD

Upon approval of the proposal to conduct a one-week "Conference for Vocational and Technical Teacher Educators on the New Media of Instruction" for fifty (50) participants from Regions III, IV, and VII of the United States as described in HEW-112 (Rev. 3/57), recruiting efforts were begun. Initial efforts to recruit participants for the conference are referred to as the "Primary Recruiting Method", and the subsequent recruiting effort is referred to as the "Secondary Recruiting Method".

Description of Participants

The participants selected were teacher educators and engaged in vocational or technical teacher education in their respective states, and engaged in some aspect of pre-service preparation of teachers, or assisting inservice teachers in at least one of the several areas of vocational and technical education. They were also currently involved in the development and use of the new media of instruction, or had a strong interest in them. Applicants were considered without regard to race, creed, color or national origin.

As part of the primary recruiting method, the State Directors and Chief State Supervisors of Vocational and/or Technical Education in Regions V, VI, and VII of the United States were contacted by letter and asked to nominate five persons (three regular and two alternate) as participants for the conference (See appendix A). Each person nominated was contacted by letter and furnished appropriate application forms which he was asked to execute and return (See appendix B). Upon receipt of the executed application form, a determination was made as to his eligibility to participate by a committee at Tuskegee Institute composed of the Dean of the School of Mechanical Industries, the Conference Director and Associate Director. After appropriate disposition was made on the application, the applicant was notified by letter: (1) that he had been selected as a participant for the conference (See appendix C), (2) that the quota for his particular state was filled and that his name had been placed on the alternate list (See appendix D), or (3) that no evidence was available to the selecting committee which would indicate that he was eligible to participate in the conference (See appendix E). Follow-up letters were sent to nominees when it was necessary.

This effort to recruit participants resulted in the identification of sixty-eight (68) nominees (fifty-one (51) regular and seventeen (17) alternate). The data compiled as a result of the primary recruiting method is shown in Table 1. Of the total sixty-eight (68) nominees submitted, forty-nine (49) were determined qualified for selection as participants. Due to an effort to obtain a more equitable geographical distribution of the participants, only thirty-eight (38) of the forty-nine (49) eligible nominees were selected as participants. The eligible nominees not selected were placed on the alternate list. Thirteen (13) of the nominees selected to participate failed to report for the conference, which resulted in twenty-five (25) participants having been obtained to attend the conference through use of the primary recruiting method.

The results of the primary recruiting method, as is illustrated in Table 1, provided an inadequate geographical distribution of eligible participants and left some of the states for which the conference was designed without representation. Table 1 also relates the need for recruitment of additional persons in order to meet the quota of fifty (50) participants, thus making necessary an additional recruiting effort which is referred to as the "Secondary Recruiting Method".

TABLE 1

RESULTS OF FLORIDA INVITATIONAL

	Nominees Identified by State	Qualified Nominees Considered	Nominees Notified of Selection	Participating Selectees	Total Participants
Alabama	11	8	5		5
Arkansas	2	2	2	1	1
District of Columbia					
Florida	2	2	2		2
Georgia	5	3	3		3
Kentucky					
Louisiana					
Maryland	1	1	1		1
Mississippi	5	5	5	2	3
Nevada					
New Mexico					
North Carolina					
Oklahoma	8	8	7	6	1
Puerto Rico	3	3	1		1
South Carolina	8	2	2		2
Tennessee	10	7	4	2	2
Texas					
Virginia	11	6	5	2	3
Virgin Islands	2	2	1		1
West Virginia					
Total	68	49	38	13	25

...

...

...

TABLE 2

VOCATIONAL AND [illegible] DISTRIBUTION OF FACILITIES

Participating States	State Board	Trade & Industr[illegible]	[illegible] Econ.	[illegible]	Distributive	Trade & Adult	Public Relations	Total
Alabama		3	2	2		1		8
Arkansas				1				1
Florida		3	1		1	1		6
Georgia		1		2			1	4
Kentucky								0
Louisiana		2		2				4
Maryland						1	1	1
Mississippi		1		2				3
Nevada	1							1
North Carolina		1	1	1				3
Oklahoma		1					1	2
Puerto Rico	1							1
South Carolina		1		1				2
Tennessee		1	1	1				3
Texas		2						2
Virginia		2					2	4
Virgin Island	1							1
West Virginia		1						1
Total	3	19	5	12	1	2	5	47

The participants evaluated each day's activities at the end of the day, and made an overall evaluation and critique of the conference at the end of the week. These results, along with those of the evaluation of Tuskegee Institute, are incorporated in the report.

Schedule

With exception of the last day of the conference, seven and one-half (7½) hours per day were utilized in studying some phase of the new instructional media. The daily schedule was as follows:

Monday through Thursday (August 15-18, 1966)

A.M.

9:00-10:30 Address and Demonstration
10:30-10:45 Rest Period
10:45-12:00 Discussion or Question and Answer Period

P.M.

1:30-3:30 Address and Discussion
3:30-3:45 Rest Period
3:45-5:00 Small Group Work Session
7:00-8:30 Small Group Reports and Summary

Friday (August 19, 1966)

A.M.

9:00-10:30 Demonstration and Discussion
10:30-10:45 Rest Period
10:45-12:00 Address and Discussion

P.M.

1:00-4:00 What the Future Holds for the New Media and Presentation of Certificates of Participation

RESULTS

Opening Session of Conference (See appendix H for conference program)

The conference was opened at 9:00 A.M. on Monday, August 15, 1966, in Building Number "A" with the Dean of the School of Mechanical Industries presiding. He expressed how happy he was that the participants could find it convenient to participate in this very important

[illegible] made it known that personnel in the School of Mechanical [illegible], was very close to vocational and technical education. He [illegible] that they are interested in new developments, and new [illegible] that will improve the quality of education and learning.

[illegible] Problem of Package Insulation, who was out of the [illegible] of Mechanical Arizona welcomed the participants. [illegible] was interested in the new means of transportation and [illegible] whose presentations were due to participants. He pointed [illegible] Insurance has been involved with vocational-technical [illegible] and their orders in the [illegible] were discussed. He mentioned that the program of the [illegible] would be there, but as was always unforeseen circumstances, having a strike, program of vocational-technical [illegible] pointed out that Package Insurance was utilized some [illegible] He noted the major economic steps, [illegible] and Industries and schools of [illegible], [illegible] and food [illegible], mechanical [illegible], voluntary [illegible] and the Department of Physical [illegible].

[illegible] of the Dean of Graduate Affairs, who conveyed on a [illegible] importance of the work in which the participants are [illegible] would be turned back to the [illegible] use of [illegible] to the [illegible] and [illegible] and [illegible]. However, in the minds of some people, [illegible] education quality would keep pace with the [illegible] in the organizations in this country. Dean [illegible] challenged us as citizens to help us take [illegible] and their new developments in this very important [illegible] Architect Architect who he would participate in the conference [illegible] the schedule would permit him. He thanked the participants again for coming to Tucson, and cordially welcomed them to the [illegible].

[illegible] Director summarized briefly on the conference and [illegible] the Associate Conference Director, the Equipment [illegible], and the Coordinator-Consultant.

[illegible] of the School of Agriculture introduced Dr. Henry A. Dorn, [illegible] of the conference on theories of learning and teaching, who [illegible] the topic "Theories of Learning and Teaching and Their Relationship to the Utilization of Educational Media". Dr. Dorn expressed his [illegible] interest in the humanistic aspects of the individual and made [illegible] to some of the major concerns that were approached in another [illegible] in which he had participated. The topics to which he [illegible] were: (1) the nature, function, and development of theory; (2) [illegible] theory as a base for the new media; (3) social theory as a base [illegible] the new media; and (4) potentials and problems of new media research and [illegible] based on theory. He illustrated a desired relationship

[illegible]

[illegible]

[illegible]

tends to ask the television group questions that were prepared for the control or conventional group. Research reveals that the TV group got the answers to those questions asked, but the conventional group was not asked about the in-depth material that was presented on TV. This area has not been researched in the way that it really should be, and much of the research was done by untrained researchers.

In reply to a question, Mr. Lambert related that one would need to spend a minimal of about 4 times as much time in the studio in preparation of a lesson than the length of the lesson itself. He emphasized that the amount of preparation and conference time varies depending on the situation, the supporting personnel, facilities, and other conditions. He pointed out the fact that he spent about 35-40 hours in preparation for a ten (10) minute presentation.

In response to a question relating to how one prepares himself to assume the role of a producer-director, Mr. Lambert suggested that one become allied with a production organization and get assigned to a producer-director who is really concerned about what one is trying to do and is really conscientious; let him help with the presentation, delivery, pronunciation, mannerisms, and other methods and techniques. One cannot do all these things at once, so provide only that which one can absorb at a given time. Tell them only what they need to know and when they need to know it. If it should be revealed to the learner, all the things he needs to know the first time that he should walk into the studio, it is multiple stimuli and is extremely difficult to absorb at one time. The job of production people is to make it as easy as possible for the performers, and subsequently the learners.

He revealed that many schools have provided special time allocations for chosen local instructors so that an outstanding job of preparation may be done for TV demonstrations. After sufficient preparation, he would make the recording on video tape with sufficient close-ups, etc., thus providing the capability to run that tape at any time of day or night desired and direct it to an infinite number of locations for presentation on television, even in the dormitory, thus saving the time of the instructor by showing to multiple section classes and classes that meet successively. Educational TV can be very economical when appropriately utilized.

In response to a question, Mr. Lambert pointed out that, it is more desirable not to have students present in the studio unless they are a part of a design to lend a positive influence on the intended audience. He also pointed out that is hoped that a centralized television system would be more effective than a decentralized system, however, he hastened to say that one should use the type that can best supply the needs of his particular organization. The larger the systems get, the higher the degree of sophistication, and the greater the need is for technicians and specialists. One would need a good electrical technician and a production specialist for educational television.

In response to a question with regard to the functions of a producer-director, Mr. Lambert pointed out that an individual in this position is concerned with the total process of a show. That is, he is responsible for the conception of the idea, developing and shaping the process of production, implementation of the script, and consultations regarding forms and art support. He is the "on the air" director, and sits in the control room; he works with the talent, positions cameras, calls for camera shots and angles; he provides for appropriate music at the correct time, sets up slides at the correct time, calls for the film to roll at the correct time, and coordinates all the technical aspects of the production.

Some of the concepts presented by Mr. Lambert are as follows:

1. Workshops should be offered for those who would utilize the ETV medium; this would help them to use it effectively.

2. A good teacher is one who can communicate with students. This generally means that the teacher uses media frequently.

3. A trend has been established toward segmented productions rather than productions of complete courses.

4. Programs should have descriptive titles rather than numbers for identification, because a number tends to suggest a particular sequence for presentation.

5. Video tape must be kept under rather controlled conditions of temperature and humidity.

6. When a good performer is identified, he should be praised, applauded, and paid.

7. An audience should be told what will be presented to them; the presentation should be made, and then they should be told what was presented.

In response to inquiries made by the participants with regard to sources of assistance in developing programs that would utilize the educational television medium, Mr. Lambert stated that the National Project for Improvement of Instructional Television, which a new division of the National Association of Educational Broadcasters, would give help to those who need it.

Mr. Lambert concluded by making the points that he had attempted to: (1) define educational television, (2) show why it is being used, and (3) demonstrate ways in which it could be used.

Afternoon Session--Tuesday

Each of the four vocational interest seminar groups met to discuss Mr. Lambert's presentation, and to determine means by which ETV could be

applied to their respective areas. Reports were prepared to present to the conference at the evening session.

Evening Session--Tuesday

A representative of each of the four groups (Agriculture, Business Education, Home Economics, and Trades and Industry), gave an oral report to the conference and submitted a written report to the Coordinator-Consultant.

The consultant on educational television commented on points made in the reports, made some necessary clarifications, and answered questions that were raised.

Third Day

Presentation by Dr. Wesley C. Meierhenry

Dr. Wesley C. Meierhenry, consultant on "Programmed Instruction" for the conference was introduced, in the absence of Dr. Queen E. Shootes by Mrs. Bettye Steele Turner, Special Supervisor, Home Economics Education for the State of Alabama. Many of the pertinent points presented by Dr. Meierhenry are summarized as follows:

Dr. Meierhenry reported that he had worked in the field of educational media for a period of 20 years, but he had noted that the most significant progress had been made in the years 1965-1966. He pointed to the development of technology and the exciting things that are happening, and observed that this represents an era when creative approaches need to be recaptured so that another leap forward can be made.

He developed the topic of programmed instruction from the point of view of what it may do for the students as well as what it may do for the teachers. He gave a brief history of the development of programmed instruction, which began with beliefs regarding its utilization on the part of Socrates who used a series of questions which was supposed to have taught a young slave something about geometry. It was an individual situation where a teacher sat across from a learner, and through a series of questions, evoked responses from him. This method had some elements of programmed instruction in it.

In 1924, Dr. Sydney Pressey, at Ohio State set out in the laboratory to do something about developing one of the first crude teaching machines, which was a device that presented a question by means of the learner turning a knob, and then responding by punching a selected button. A correct answer, which is referred to in the programmed instruction movement as reinforcement, would cause the learner to receive a stick of gum. This machine was later developed in such a manner that it was able to present a program in a way that if the learner was able to get certain questions

correct, the internal mechanism of the machine would cause the learner to bypass certain other questions and move to ones which hadn't been answered correctly; thus, there was some similarity to the branching technique. In 1931, the total programmed instruction movement was aborted, possibly, because teaching and education were not ready for mechanization of even a small aspect of the teaching act.

The modern history of programmed instruction began in 1954 when B. F. Skinner, a psychologist at Harvard University, wrote an article in Scientific American suggesting that a tremendous new breakthrough was to occur in the teaching-learning field, and that it was now possible to apply this research to human beings by breaking the material down into very small steps. The program was to require the student to be active in the process by causing him to construct the response, to which he would find out immediately whether it was correct or incorrect. This particular principle of immediate knowledge of results would provide reinforcement for the learner, and is one of the basic principles of programmed instruction today.

In programmed instruction, the content which is programmed must be broken down into small bits which are referred to as frames. It is broken down systematically and then presented in a certain scope and sequence. In all types of programmed instruction, there must be some kind of response which is expected from the learner. He must demonstrate some kind of behavior, or indicate whether or not he comprehends what was taught. Learning is an individual process, and the trend presently is moving toward individual types of instruction. However, in the mass techniques that we have been using, we have never been quite clear as to what degree each individual is understanding and behaving in accordance with what we were trying to teach him.

The learner should reinforce, immediately, whatever response he makes. We are aware of the difficulty of answering individual questions in the conventional classroom setting; that is, providing some kind of feedback or information to all of the members in the class so that they may perceive the content correctly. In the case of programmed instruction, there is an immediate kind of feedback which the learner gets, because he can compare his answer with the answer that is on the program. There is a psychological principle which is involved in programming which portends that it is much more difficult to remove an incorrect notion than it is to cause one to perceive a correct one. Programmed instruction provides immediate confirmation with a minimum lag of time after the teaching takes place, providing evidence as to whether the learner responded correctly to the question.

The pace is set by the learner, and he no longer finds himself in a "lock-step" situation; which is usually the case in a class of 30 to 40 students, wherein, everything must move according to some schedule. A great deal of evidence is being revealed through various experiments, including programmed instruction, which tends to establish that variables of time is one of the big factors in learning.

There are some attempts to make teaching, instruction, and learning more of a science as well as an art. In programmed instruction, there is now a means of controlling what the learner does, because he sits down before a machine containing a program, and in many cases he is physically isolated from the rest of his environment.

Generally, the programmer first sits down with the learner for whom the program is intended, and proceeds in the Socratic Method to teach him and to interact with him in such a way that he begins to understand the strategies and the ways in which a less mature learner approaches the subject matter area. He works first of all with one student and then he makes a preliminary draft of the program. He then calls in from 3 to 6 people of the kind for whom the material will be taught, and tries the material out on these persons. He locates errors, and where the subjects have problems in understanding, he makes a determination as to whether the program is achieving its objectives; then he revises as appropriate. He then tries the program again with a larger group, finally releasing it for field testing with hundreds of youngsters scattered across the country, in various kinds of school systems and situations. When the program is marketed, the producer has a good idea as to how it will work.

Some hold that programmed instruction is anything that can be reproduced in like form. If this is true, then television, certain kinds of motion picture excerpts, etc. can qualify as programmed instruction, because they enable one to reproduce exactly what was happening in the teaching procedure, and do it an indefinite number of times, exactly the same way.

One of the great difficulties in the field of education up to the present time is in making it any kind of science. That is, one must be able to reproduce in kind and each time the results should come out the same way. As a consequence, we now have the techniques which enable one to reproduce a teaching strategy or teaching situation, and this is in contrast with what happens in the classroom. One can't really compare what happens in the traditional classroom with what happens in another because we cannot reproduce a like situation. These techniques--educational television, video tape recorders, programmed instruction, 8 mm single concept films, and the many other media--begin to place into the the hands of the educator the possibility of duplicating exactly the procedures with one group that was used with another group. Feedback is a very important aspect of our understanding learning and it is obtained through programming and the responses given to the program.

There are two distinct kinds of programming used in programmed instruction. They are two entirely different theoretical kinds of orientation, they are the "linear" and the "branching".

In the linear approach, we develop individual bits of information which are presented to the learner, to which he responds in a fixed sequence. An example of this idea is the process of stringing beads.

answer, the learner would be instructed to turn to a specific page in the book in order to obtain the correct answer, which is the reason for the term, scrambled book. The reason for having the book scrambled is to minimize cheating. We have now discovered that the important part of programmed instruction is not the hardware, it is not the machine, but it is the material that is in the machine--the program. The hardware for the technology of education is far in advance of the level of our ability to produce the "software", the program. The software presents the crucial need in education, and some people have said, that he who controls the "software" in education is going to control education. We are moving to use the medium that is most amenable for the content and providing shorter programs rather than attempting to program courses.

Another kind of use being made of programmed instruction is the teaching of discrete bodies of subject matter, such as the slide rule, or vocabulary. A major contribution of programmed instruction is in the area of acceleration. Some learners who either through experience, background, or native ability should have many more experiences in which they may engage. Many schools have used programmed instruction as a way of enriching, supplementing, and extending the kinds of experiences which are available to the learner. In case of remedial instruction, it may be used to help learners who need additional help in a particular area.

Afternoon Session--Wednesday

A brief but effective presentation was made by Mr. Walter Scott, Director of the Audio-visual Center, School of Education. In addition to the many other pertinent points he made, he covered the various types and designs of audio tape recorders, and recording materials, pointing out their unique advantages and disadvantages. He also revealed some of the many varied uses to which tape recorders may be put and the various methods and techniques of their employment. Mr. Scott closed the session with a question and answer period.

After the close of the persentation by Mr. Scott, the participants were formed into the four vocational interest seminar groups: (1) Agriculture, (2) Business Education, (3) Home Economics, and (4) Trade and Industry. Each group selected a chairman and recorder. They discussed the presentation as made by Dr. Wesley C. Meierhenry and Mr. Walter Scott, from the viewpoint of how they could adapt this information for use in their particular vocational interest area. An oral and written report of their activities was presented at the evening session.

Evening Session--Wednesday

A represenative for each of the four vocational interest seminar groups made an oral report to the participants, reflecting the reactions of the members of his group to the presentations for the day. Each group submitted a written report of their deliberations.

Seventh Day:

Presentation by Mr. Robert R. Hardman

Mr. Hardman initiated his presentation by stating that the teacher stands at the vertex of great change, and never in our history has the classroom teacher been so severely taxed with the need to use his ingenuity and his efforts to keep abreast, of not only subject content, but the communication of that content to the student. In a few brief decades, teaching has changed from almost complete dependence on face to face verbal communication. Today, it requires knowledge of how to select and appropriately use communication media. The role of selecting and utilizing communication media is a very important new change in teaching methods.

In teaching, one selects the specific teaching objectives, the content, and the method of teaching that content. The teacher may communicate what content in three ways: (1) the teacher himself, (2) some form of media, or (3) the teacher along with some form of media. These three possibilities are done with the intended audience in mind.

Research has indicated that when learning through the sensory process (1) one learns approximately eighty-three(83) per cent through the visual sense, (2) about eleven (11) per cent through the sense of hearing, (3) about three and one-half (3½) per cent through the sense of smell, (4) about one and one-half (1½) per cent through the sense of touch, and (5) about one (1) per cent through taste. It is interesting to note that about ninety-four (94) per cent of that which we learn is through the sense of sight and sound.

The teacher should keep in mind, when selecting a media to communicate, the developmental nature of audio-visual experience. Mr. Hardman identified Edgar Dale's "Cone of Experience" to illustrate the developmental nature of audio-visual experience. He said, that it is felt by Edgar Dale that all audio-visual experiences could be placed along a continuum "concrete" to "abstract". He placed the more concrete audio-visual experience at the base and the more abstract closer to the apex. The experiences illustrated, beginning from the base and moving toward the apex, are: (1) direct purposeful experiences, (2) the contrived experience, (3) dramatized experiences, (4) demonstrations, (5) field trips, (6) exhibits, (7) television, (8) motion pictures, (9) still pictures, (10) visual symbols, and (11) verbal symbols.

Another factor to be considered by the teacher in the selection of media is the relationship between the aforementioned cone of audio-visual experiences and what the learner already knows and brings to the learning situation. Another triangle was devised which was located alongside the cone of experiences with the apex of this triangle pointed towards the base of the cone of experience, to illustrate the relationship between the types of audio-visual experiences the learner has and what he brings to the learning situation. Thus, when a learner brings a very few concepts

with him to class, more direct or concrete experiences are needed. When he brings many concepts with him to class, then he can more effectively utilize symbolic or abstract media. A good teacher must plan for the intended audience and utilize the media that can best satisfy the unique needs.

Mr. Hardman, in an unusually efficient and effective manner, acquainted the participants with the production and effective utilization of slides, filmstrips, and motion pictures of various types; relating their general and unique characteristics, such as general instructional advantages, and their disadvantages. He effectively and skillfully demonstrated the utilization of overhead transparancies, 2x2 slides, 16 mm motion pictures, and 8 mm single concept films to the extent that the presentation became a living example of instructional media being utilized to the optimum degree in support of the objectives of his presentation.

Afternoon Session--Thursday

During the afternoon session, the participants were reformed into the four vocational interest seminar groups: (1) Agriculture, (2) Business Education, (3) Home Economics, and (4) Trade and Industry. Each group selected a chairman and a recorder. The group discussed the presentation as made by Mr. Hardman from the viewpoint of how they could apply this information to their particular vocational interest area. They prepared to render an oral and written report during the evening session.

Evening Session--Thursday

An oral and written report was given to the general assembly by a represenative from each of the four groups during the evening session. This report reflected the reactions of the various members of the respective groups as it related to the presentations of the day.

Fifth Day

Presentation by Dr. David P. Barnard

Dr. Barnard, coordinator-consultant for the conference, geared the morning portion of his presentation to opaque and overhead transparancies, and the afternoon portion to the topic, "Change, Technology and the New Media in Vocational Education". With regard to opaque and overhead transparancies, he pointed out their general and unique advantages and their limitations. He also demonstrated unique production and utilization methods and techniques for these media.

During the afternoon, Dr. Barnard summarized the total activities of the conference and reviewed the purposes for which it was held. He emphasized that the presently available media of instruction, if used judiciously, can play a very significant role in vocational and technical education. In conclusion he oriented the participants on some of the innovations that teachers may expect to become practical reality in the near future. He challenged them to remain allert for these innovations and to make maxim utilization of them as appropriate.

Evaluation of Conference by Participants

During each evening session, the participants were asked to evaluate the proceedings of the day on the "Daily Evaluation Sheet" (See appendix J). A discussion of the evaluation for the first day of the conference is presented on page 10 of this report. On the last day of the conference each participant was asked to make an evaluation on the "Total Conference Evaluation Sheet" (See appendix K).

The results of the data obtained from the "Daily Evaluation Sheet" is presented in the "Summary of Participant's Evaluation of Daily Sessions" (See appendix L). It may be noted that on Monday, the first day of the conference, thirty-three (33) per cent of the responding participants rated the overall proceedings for the day as excellent, eighty-two (82) per cent rated it as either excellent or good, fourteen (14) per cent rated it as fair and four (4) per cent rated it as poor. On Tuesday, the second day of the conference, fifty-nine (59) per cent of the responding participants rated the presentation excellent, ninety-eight (98) per cent rated it either excellent or good and two (2) per cent rated it as fair. On Wednesday, the third day of the conference, forty-eight (48) per cent of the responding participants rated the presentation as excellent, ninty-six (96) per cent rated it as excellent or good, three (3) per cent rated it fair, and one (1) per cent rated it as poor. On Thursday, the fourth day of the conference, sixty-nine (69) per cent of the participants responding rated the presentation as excellent, ninety-seven (97) per cent rated it as either excellent or good, and three (3) per cent rated it as fair. On Friday, the fifth day of the conference, eighty-three (83) per cent of the participants responding rated the presentation as excellent, ninety-seven (97) per cent rated it as either excellent or good, and three (3) per cent rated it as fair.

A summary of selected data obtained from the Total Conference Evaluation Sheet is presented in appendix M, "Summary of Total Conference Evaluation Sheet". The rating scale used is numerical, with one (1) as the low rating and seven (7) as the high rating. The participants were asked to indicate, the extent that he felt the objectives for the conference were achieved, by placing a check mark in the appropriate column.

The participants were asked, to what extent, did the conference develop an awareness on their part of the availability and value of the new media of instruction. Of a total of forty-three (43) responses, sixty-one (61) per cent indicated seven (7), fourteen (14) per cent indicated six (6), twelve (12) per cent indicated five(5), two and one-half ($2\frac{1}{2}$) per cent indicated four (4), eight (8) per cent indicated three (3), two and one-half ($2\frac{1}{2}$) per cent indicated two (2), and none (0) indicated one (1).

The participants were asked, to what extent, did the conference develop their ability to select and use, judiciously, the educational media in respect to accepted principles of teaching and learning. Of the total of forty-three responses, thirty-seven (37) per cent indicated seven (7),

nineteen (19) per cent indicated six (6), thirty-three (33) per cent indicated five (5), none (0) indicated four (4), eight (8) per cent indicated three (3), three (3) per cent indicated two (2), and none (0) indicated one (1).

The participants were asked, to what extent, did the conference develop their ability to utilize the results of research conducted on the use and development of the new media in vocational and technical education. Of a total of forty-two (42) responses, thirty-three (33) per cent indicated seven (7), twenty-two (22) per cent indicated six (6), twenty-two (22) per cent indicated five (5), seven (7) per cent indicated four (4), twelve (12) per cent indicated three (3), two (2) percent indicated two (2), and two (2) per cent indicated one (1).

The participants were asked, if they had previous training and/or experience in the new media of instruction before the conference. Of the total forty-seven (47) participants, tewlve (12) replied "no", sixteen (16) replied "yes", fourteen (14) replied "some", and five (5) made no reply.

The participants were asked, what changes they planned to implement "on the job" as a result of the conference. Of the forty-seven (47) participants, twenty-seven (27) indicated that they would use more media, eleven (11) indicated that they will promote the use of media through their supervisors, deans, instructors, and others, five (5) indicated that they would implement changes on the job to better utilize the media, three (3) indicated that they would secure additional media hardware, and two (2) indicated a need for additional instruction regarding the new media and one (1) indicated that he will prepare more instructional materials.

The participants were asked to make comments. Listed below are selected comments that were made by them:

1. Even though I had used some of the media, I had no idea of the many possible ways in which it could be used in my field.

2. A very excellent group of consultants, and to be able to see them use the different media in their presentation was informative and a challenge to become a better teacher educator.

3. This type of conference needs to be repeated.

4. This has been a most informative conference. I learned many details and procedures. I thoroughly enjoyed meeting and working with participants. I am pleased to have had the opportunity to attend this conference.

5. I found the conference most gratifying in the imparting of information and the programs were well planned.

6. Consultants and directors were well organized.

7. Consultants were excellent.

8. This has been a very interesting conference. I have seen a group of people who have been "left out" of media, become very media oriented.

9. The conference was meaningful, and I was impressed with the method of media teaching, and its application.

10. The conference was very interesting and stimulating. With information gained from the conference, it will be easy to make use of the new media now available.

11. This week has been a most benificial one for me. Have been stimulated to encourage others to become knowledgable in the new instructional media.

12. I think that this conference has been most valuable and has pointed up the importance of utilizing new media in teaching.

13. The conference was stimulating and more of such conferences should be held.

14. I have had a wonderful experience. All the consultants are outstanding people in the new media of instruction.

15. This conference has sparked a new interest in the use of the available new media for improving learning conditions.

16. I think the conference was well planned and well executed.

DISCUSSION

The results of the conference indicate that at least one of the specific objectives of the conference was achieved during the week in which it was held. There is evidence that an awareness on the part of vocational and technical teacher educators of the availability and value of the new media of instruction was developed. This awareness was brought about through lectures, demonstrations, and small-group work sessions.

Theories of Learning

The presentation on theories of learning awakened the participants to the fact that no single set of theories can be applied to a specific learning situation. It was pointed out that there is a stratification between what is discovered through research in the laboratory, and what is actually applied in classrooms. The consultant made it clear that it is not necessary for a teacher educator to wait until a set of theories is developed prior to making innovations in education.

particular reference was made to the use of media without regard to the theory that may be applicable in a particular situation.

Dr. Dorn pointed out that there are no theories of teaching that can be applied in using the new media. He explained that research has been centered on the behavior of learners--not teachers.

Educational Television

The presentation on educational television, which was made by Mr. C. Mosley Lambert, gave the conference participants insights into the many advantages of using this medium. He emphasized the importance of close coordination between educators, who prepare the content and present it on TV, and the professional personnel who are experts in the area of television production.

It is clear that time and effort are put into the preparation of materials to be presented by this medium. This means that the learner benefits from the improved quality of materials that are presented to him. Among other things, this means that much extraneous matter is omitted from learning materials used in educational television.

Programmed Instruction

Dr. Wesley C. Meierhenry's treatment of programmed instruction included the origin and development of this medium, its principles, advantages, uses, and limitations.

He discussed the difficulty in making education a science, but pointed out that this goal may be realized through programmed instruction. When a learning situation can be replicated, as scientific experiments are in other fields, then education may move into a new era.

It was noted by Dr. Meierhenry that there is a trend away from the usage of "hardware" in programmed instruction, and a rather widespread movement toward the utilization of material presented in texts. This may or may not be good for the field of vocational education. In an area of study where concrete and mechanical objects are dealt with largely, there may be a tendency for students to recoil from materials that are presented in a form that resembles the traditional one-- the textbook.

Tape Recordings

Although the tape recording is not a new medium in the strictest sense of the word, it can be used in conjunction with other media such as slides, transparencies, and filmstrips. Mr Scott pointed out that one of its many advantages is its versatility.

[illegible] of 8mm Slides, Filmstrips, and 8 mm Films

Mr. Hathaway's presentation gave the conference participants the opportunity of witnessing the extensive use of media in presenting concepts. His utilization of Dale's "Cone of Experience" very effectively [illegible] the principles of learning involved in the lectures and discussion that followed. His presentation was enriched with overhead transparencies prepared in unique ways, and enlivened with abundant humor.

Mr. Hathaway demonstrated how the 8mm. single--concept film can be used to increase and accelerate learning in the vocational and technical [illegible]. He pointed out that the main limitation on the use of educational films in learning situations is the imagination of the teachers who use them.

[illegible] Overhead Projection

The lecture--demonstration on the uses of opaque and overhead projection by Dr. Barnard gave the conference participants an opportunity to see how projected materials are prepared, and to see what uses can be made of them.

It showed that the overhead projector for transparencies may be used in a variety of ways, but that the opaque projector is somewhat limited with regard to effective utilization. The main disadvantage of the latter is the need for the room in which projections are shown to be almost totally dark.

[illegible] and the New Media in Vocational Education

Through the use of the tape recorder and overhead transparencies simultaneously, Dr. Barnard brought the conference to a climax with the review of technological developments and projections into the future. He charged the conferees with the responsibility to return to their respective stations with a determination to use the educational media, and to promote their utilization in the preparation of teachers.

Evaluation of the Conference

The purposes of the daily evaluation sheets were two-fold: (1) to obtain "feedback" from the participants in order to improve the way in which the conference was being conducted, and (2) to obtain reactions to the various media presented. The data reveal that the first day of the conference received the "lowest" rating. Eighty-two (82) per cent of the conferees rated this day as either good or excellent, and four (4) per cent rated it as poor. A possible reason for this is that very few visual presentations were made in connection with the discussion on learning theory. It seems that the group was disinterested in being exposed to a considerable amount of "hardware" early in the conference.

The day receiving the highest rating was the last. Ninety-seven (97) per cent of the participants indicated that the proceedings of this day were either excellent or good, and only three (3) per cent rated it fair. It is possible that the last day of the conference enjoyed a favorable "cumulative effect" from the preceding days in

Summary

Summary

Summary

APPENDIX

May 18, 1966

In cooperation with the U. S. Office of Education, Division of Adult and Vocational Research, Tuskegee Institute will conduct a one-week conference for vocational and technical teacher educators on the new media of instruction, during the week of August 15-19, 1966. The general purposes of the conference are to stimulate interest in, and promote the utilization of the media through a series of addresses, demonstrations, discussions, and small-group work sessions. These activities will be carried out under the leadership of outstanding authorities in the fields of audio-visual education, and communication theory.

The content of the program will be concerned with educational television, programmed instruction, 8 mm single-concept films, filmstrips, tape recordings, slides, phonograph recordings, opaque projections, overhead transparencies, etc.

This letter is being sent to you, as State Director of Vocational and Technical Education, and to the state supervisors within your State. As a state supervisory group, you are invited to submit the names of five individuals (three as regulars, and two as alternates) engaged in vocational or technical teacher education in your State, as nominees for participation in this conference. Each nominee must be engaged in some aspect of the preservice preparation of teachers, or in assisting inservice teachers in any of the several areas of vocational and technical education. Nominees are asked to be currently involved in the development and use of the media of instruction, or have a strong interest in them. Applicants will be considered without regard to race, creed, color, or national origin.

Each participant will receive reimbursement of $75.00 for himself plus $15.00 for each dependent who must accompany him, to cover the cost of living expenses for the week. In addition, he will receive a travel allowance to cover the cost of transportation by bus, or its equivalent, via the most expeditious route from his home to Tuskegee Institute and return. No tuition fee will be charged for this conference.

Please complete the enclosed form and return it in the stamped, self-addressed envelope on or before June 3, 1966.

Sincerely yours,

John A. Welch, Dean
School of Mechanical Industries

JAW:vp
Enclosure

Tuskegee Institute

TUSKEGEE INSTITUTE
ALABAMA

SCHOOL OF
MECHANICAL INDUSTRIES

In cooperation with the U. S. Office of Education, Division of Adult and Vocational Research, Tuskegee Institute will conduct a one-week conference for vocational and technical teacher educators on the new media of instruction, during the week of August 15-19, 1966. The general purposes of the conference are to stimulate interest in, and promote the utilization of the media through a series of addresses, demonstrations, discussions, and small-group work sessions. These activities will be carried out under the leadership of outstanding authorities in the fields of audio-visual education, and communication theory.

The content of the program will be concerned with educational television, programmed instruction, 8 mm single-concept films, filmstrips, tape recordings, slides, phonograph recordings, opaque projections, overhead transparencies, etc.

This letter is being sent to your State Director and also to all of the other head state supervisors of vocational education within your state. As a state supervisory group, you are invited to submit the names of five individuals (three as regulars, and two as alternates) engaged in vocational or technical teacher education in your State, as nominees for participation in this conference. Each nominee must be engaged in some aspect of the preservice preparation of teachers, or in assisting in-service teachers in any of the several aspects of vocational and technical education. Nominees are asked to be currently involved in the development and use of the media of instruction, or have a strong interest in them. Applicants will be considered without regard to race, creed, color, or national origin.

Each participant will receive reimbursement of $75.00 for himself plus $15.00 for each dependent who must accompany him to cover the cost of living expenses for the week. In addition, he will receive a travel allowance to cover the cost of transportation by bus, or its equivalent, via the most expeditious route from his home to Tuskegee Institute and return. No tuition fee will be charged for this conference.

Sincerely yours,

John A. Welch, Dean
School of Mechanical Industries

OFFICIAL LIST OF NOMINEES FOR CONFERENCE FOR
VOCATIONAL TEACHER EDUCATORS ON NEW MEDIA OF INSTRUCTION
AT TUSKEGEE INSTITUTE

State _____ Date _____

Regular Nominees
(Please submit three names)

1. Name _____

   Address _____

   _____

2. Name _____

   Address _____

   _____

3. Name _____

   Address _____

   _____

Alternate Nominees
(Please submit two names)

1. Name _____

   Address _____

   _____

2. Name _____

   Address _____

   _____

_____
Name and Title of State Official

Tuskegee Institute

TUSKEGEE INSTITUTE
ALABAMA

SCHOOL OF
MECHANICAL INDUSTRIES

You were nominated to participate in a one-week conference for vocational and technical teacher educators on the new media of instruction. This conference will be held at Tuskegee Institute in cooperation with the Division of Adult and Vocational Research, U. S. Office of Education, during the period August 15-19, 1966, and will be conducted by outstanding authorities in the field of audio-visual education and communication theory.

The content of this program will be concerned with educational television, programmed instruction, 8 mm single-concept films, filmstrips, tape recordings, slides, phonograph recordings, opaque projections, overhead transparencies, etc.

Each participant will receive reimbursement of $75.00 for himself plus $15.00 for each dependent who must accompany him to cover the cost of living expenses for the week. In addition, each participant will receive a travel allowance to cover the cost of transportation by bus, or its equivalent, via the most expeditious route from his home to Tuskegee Institute and return. No tuition fee will be charged for this conference.

Having been nominated, we would appreciate your executing the enclosed form and returning it to me promptly so that we may make final plans regarding your status, thus allowing you to make definite plans.

If we may be of further assistance please call on us.

Sincerely yours,

John A. Welch
Dean

JAW:b

Enclosure

cc: Dr. W. V. Payne
Mr. A. O. Sherard

Tuskegee Institute

TUSKEGEE INSTITUTE
ALABAMA

SCHOOL OF
MECHANICAL INDUSTRIES

We are pleased to confirm your selection as a participant in the conference for vocational and technical teacher educators on the new media of instruction which will be held at Tuskegee Institute from August 15 through 19, 1966. We will be looking forward to your arrival on the date indicated on your application form.

Registration will take place on Sunday, August 14, from 3 to 8 p.m. in the respective residence halls in which the participants will live - women in Residence "G" and men in Residence "E". Those who will live in Dorothy Hall may register there.

A "mixer" will be held in the lower lounge of Residence "G" on Sunday, August 14, from 8 to 9 p.m. Meals will be served in Tompkins Hall Dining Room. They may be ordered a la carte. Information concerning recreational activities will be made available to you upon your arrival.

All sessions of the conference will be held in the classroom of the Architectural Division in Willcox Building "A". The opening session will be held at 9:00 a.m. on August 15. Dress for all sessions will be casual.

Reimbursement for travel and living expenses will be paid on the last day of the conference - August 19, 1966.

Please find enclosed a map of the campus and a self-addressed postcard which you are requested to complete and return promptly. This additional information is needed for the preparation of identification badges, which will be worn throughout the conference.

We are looking forward to a very interesting and stimulating conference.

Sincerely yours,

John A. Welch
Dean

JAW:m
Enclosures: 2

Tuskegee Institute

TUSKEGEE INSTITUTE
ALABAMA

SCHOOL OF
MECHANICAL INDUSTRIES

We are very pleased that you are interested in being a participant in the conference for vocational and technical teacher educators on the new media of instruction which will be held at Tuskegee Institute during the period August 15-19, 1966. However, the allocation for your State has been filled and your name has been placed on the alternate list. If someone from your State should decide not to attend, or if the quota for your State should be increased, you will be contacted promptly.

Again, we thank you for your interest in this program and if we may be of further service, please call on us.

Sincerely yours,

John A. Welch
Dean

JAW:b

cc: Dr. W. V. Payne
Mr. A. O. Sherard

Tuskegee Institute

TUSKEGEE INSTITUTE
ALABAMA

SCHOOL OF
MECHANICAL INDUSTRIES

We are quite pleased that you are interested in participation in the conference for vocational and technical teacher educators on the new media of instruction which will be held at Tuskegee Institute during the period August 15-19, 1966. However, under the provisions of the grant received from the Division of Adult and Vocational Research, U. S. Office of Education, the participants must be a teacher educator and engaged in some aspect of the pre-service preparation of teachers, or in assisting inservice teachers in any of the several areas of vocational and technical education. They are also asked to be currently involved in the development and use of the new media of instruction, or have a strong interest in them. Having no evidence that you meet this criteria, your name was not placed on the list of accepted applicants.

I regret that we cannot accept you as a participant and if it should occur that a similar conference be offered in the future wherein your qualifications should fall within the scope of the grant, we shall be happy to have you participate.

If we may be of further service, please call on us.

Sincerely yours,

J. A. Welch

John A. Welch
Dean

JAW:i

cc: Dr. W. V. Payne
Mr. A. O. Sherard

Tuskegee Institute

TUSKEGEE INSTITUTE
ALABAMA

SCHOOL OF
MECHANICAL INDUSTRIES

In cooperation with the Division of Adult and Vocational Research, U. S. Office of Education, Tuskegee Institute will conduct a one-week conference for vocational and technical teacher educators on the new media of instruction, during the week of August 15-19, 1966.

The general purposes of the conference are to stimulate interest in, and promote the utilization of the new media through a series of addresses, demonstrations, discussions, and small group work sessions. These activities will be carried out under the leadership of outstanding authorities in the fields of audio-visual education, and communication theory. The content of the program will be concerned with educational television, programmed instruction, 8 mm single concept films, filmstrips, tape recordings, slides, phonograph recordings, opaque projections, overhead transparencies, etc.

We would appreciate receiving applications from qualified persons at your institution to participate in this conference. Applicants must be engaged in vocational or technical teacher education in your State and engaged in some aspect of the preservice preparation of teachers, or in assisting inservice teachers in any of the several areas of vocational and technical education. They are also asked to be currently involved in the development and use of the new media of instruction, or have a strong interest in them. Applicants will be considered without regard to race, creed, color or national origin.

Each participant will receive reimbursement of $75.00 for himself plus $15.00 for each dependent who must accompany him, to cover the cost of living expenses for the week. In addition, he will receive a travel allowance to cover the cost of transportation by bus, or its equivalent, via the most expeditious rate from his home to Tuskegee Institute and return. No tuition fee will be charged for the conference.

We would be pleased if qualified applicants will execute and submit the enclosed forms promptly so that final plans may be made regarding their status, thus allowing the applicant to make definite plans.

We anxiously await your reply.

Sincerely yours,

John A. Welch
Dean

JAW:b

Enclosure

cc: Dr. W. V. Payne
Mr. A. O. Sherard

Mailing List - Land-Grant Colleges and Universities

Mr. Coy B. Smith, Head
Industrial Education Department
Arkansas Agricultural & Mechanical College
Box 509
Pine Bluff, Arkansas 71601

Dr. D. B. Hutson, Head
Department of Vocational Teacher Education
University of Arkansas
Fayetteville, Arkansas 72701

Mr. G. D. Kyle, Dean
Agricultural, Mechanical, and Normal College
Pine Bluff, Arkansas 71601

Gerald T. Hudson, Dean
Agriculture and Home Economics
University of Arkansas
Fayetteville, Arkansas 72701

Paul M. Young, Vice President
University of Arkansas
Fayetteville, Arkansas 72701

Dean of Nursing
University of Arkansas
Fayetteville, Arkansas 72701

Dr. Edwin L. Kurth, Teacher Educator
University of Florida
Gainesville, Florida 32601

H. Manning Efferson, Dean
Florida Agricultural and Mechanical University
Tallahassee, Florida 32307

C. E. Walker, Dean of Agriculture
Florida AGricultural and Mechanical University
Tallahassee, Florida 32307

M. S. Thomas, Dean
Vocational-Technical Institute
Florida Agricultural and Mechanical University
Tallahassee, Flordia 32307

El J. Burgess, Dean of Nursing
Florida Agricultural and Mechanical University
Tallahassee, Florida 32307

Robert B. Mantz, Vice President
University of Florida
Gainesville, Florida 32601

Marvin A. Brooker, Dean of Agriculture
University of Florida
Gainesville, Florida 32601

Darrel J. Mase, Dean
Health and Related Services
University of Florida
Gainesville, Florida 32601

Dorothy M. Smith, Dean of Nursing
University of Florida
Gainesville, Florida 32601

Mr. Frank Shauntee, Acting Head Industrial Arts
Kentucky State College
Frankfort, Kentucky 40601

Dr. Leonard C. McDowell, Teacher Educator
University of Kentucky
Lexington, Kentucky 40503

David H. Bradford, Dean
Kentucky State College
Frankfort, Kentucky 40601

Robert F. Kerley, Vice President
University of Kentucky
Lexington, Kentucky 40506

William Seay, Dean
Agriculture and Home Economics
University of Kentucky
Lexington, Kentucky 40506

Marcia Dake, Dean of Nursing
University of Kentucky
Lexington, Kentucky 40506

Mr. W. H. Armstrong, Teacher Educator
Louisiana State University
Baton Rouge, Louisiana 70803

Dr. N. A. Hauer, Teacher Trainer
Louisiana State University
Baton Rouge, Louisiana 70803

Mr. N. S. Harrison, Teacher Educator
Southern University & Agricultural & Mechanical College
Baton Rouge, Louisiana 70813

Grover E. Murray, Vice President
Louisiana State University & Agricultural & Mechanical College
Union Station
Baton Rouge, Louisiana 70803

J. Norman Efferson, Dean of Agriculture
Louisiana State University & Agricultural & Mechanical College
Union Station
Baton Rouge, Louisiana 70803

E. C. Harrison, Dean
Southern University & Agricultural & Mechanical College
Baton Rouge, Louisiana 70813

H. Jackson, Dean of Agriculture
Southern University and Agricultural & Mechanical College
Baton Rouge, Louisiana 70813

Dr. Donald Maley, Head
Industrial Education Department
College Park, Maryland 20740

Florence M. Gipe, Dean of Nursing
Baltimore Campus
University of Marvland
Baltimore, Maryland 20742

R. Lee Hornbake, Vice President
University of Maryland
College Park, Maryland 20742

Gordon M. Cairns, Dean of Agriculture
College Park Campus
University of Maryland
College Park, Maryland 20742

Selma F. Lippeatt, Dean
Home Economics
College Park Campus
University of Maryland
College Park, Maryland 20742

Mr. Chester R. Brown, Acting Chairman
Industrial Education
University of New Mexico
Albuquerque, New Mexico 87106

Harold L. Enarson, Academic Vice President
University of New Mexico
Albuquerque, New Mexico 87106

Virginia Crenshaw, Dean of Nursing
University of New Mexico
Albuquerque, New Mexico 87106

Dr. Durwin M. Hanson, Teacher Trainer
North Carolina State University
Raleigh, North Carolina 27607

Mr. George C. Gail, Acting Chairman
Industrial Education Department
The Agricultural & Technical College of North Carolina
Greensboro, North Carolina

Glenn F. Rankin, Dean of Instruction
Agricultural and Technical College of North Carolina
Greensboro, North Carolina 27411

Burleigh C. Webb, Dean of Agriculture
Agricultural and Technical College of North Carolina
Greensboro, North Carolina 27411

Naomi W. Wynn, Dean of Nursing
Agricultural and Technical College of North Carolina
Greensboro, North Carolina 27411

S. C. Smith, Dean
Technical Institute
Agricultural and Technical College of North Carolina
Greensboro, North Carolina 27411

Harry C. Kelley, Dean of the Faculty
North Carolina State of the University of North Carolina
Raleigh, North Carolina 27600

H. B. James, Dean of Agriculture
North Carolina State of the University of North Carolina
Raleigh, North Carolina

Dr. Harold W. Crawford, Dean
School of Industrial Education
South Carolina State College
Orangeburg, South Carolina

Mr. W. V. Harper
Tennessee A. & I. State University
Nashville, Tennessee 37208

Mr. Joe L. Reed, Head
Industrial Education Department
The University of Tennessee
Knoxville, Tennessee 37916

Alger V. Baswell, Vice President
Tennessee Agricultural and Industrial State University
Nashville, Tennessee 37203

David A. Hamilton, Acting Dean
Agricultural and Home Economics
Tennessee Agricultural and Industrial State University
Nashville, Tennessee

Herman E. Spivey, Vice President
University of Tennessee
Knoxville, Tennessee 37916

Webster Pendergrass, Dean of Agriculture
Knoxville Campus
University of Tennessee
Knoxville, Tennessee 37916

Lura M. Odland, Dean of Home Economics
Knoxville Campus
University of Tennessee
Knoxville, Tennessee 37916

Ruth N. Murry, Dean of Nursing
Memphis Campus
University of Tennessee
Memphis, Tennessee

Dr. A. I. Thomas, Dean
Industrial Arts Teacher Education
Prairie View Agricultural & Mechanical College
Prairie View, Texas 77445

Mr. B. M. Hackney, Head
Vocational Industrial Teacher Education
Texas Agricultural & Mechanical University
College Station, TExas 77843

Dr. Chris H. Groneman, Head
Industrial Education Department
Texas Agricultural & Mechanical University
College Station, Texas 77843

J. R. Woolf, President
Arlington State College
Texas A & M University System
Arlington, Texas 76010

Dr. E. B. Evans, President
Prairie View Agricultural & Mechanical College
Prairie View, Texas 78661

J. W. Drew, Dean
Prairie View Agricultural & Mechanical College
Prairie View, Texas 78661

E. J. Howell, President
Tarleton State College
Stephenville, Texas 76402

Paul A. Cunyus, Dean
Tarleton State College
Stephenville, Texas 76402

W. J. Graff, Dean of Instruciton
Texas A & M University
College Station, Texas 77843

R. E. Patterson, Dean of Agriculture
Texas A & M University
College Station, Texas 77843

Mr. Frederick J. Lacy, Chairman
Industrial Arts Education Department
West Virginia State College
Institute, West Virginia

Dr. Thomas J. Brennan, Coordinator
Industrial Education Department
West Virginia University
Morgantown, West Virginia 26506

Harrison H. Ferrell, Dean
West Virginia State College
Institute, West Virginia 25112

John F. Golay, Provost
West Virginia University
Morgantown, West Virginia 26506

Dorothy M. Major, Dean of Nursing
West Virginia University
Morgantown, West Virginia 26506

Robert S. Dunbar, Jr., Dean
Agriculture, Forrestry and Home Economics
West Virginia University
Morgantown, West Virginia 26506

Thomas C. Campbell, Jr., Dean of Commerce
West Virginia University
Morgantown, West Virginia 26506

Roster of Persons Who Were Placed
on Alternate List

Mrs. Eva Adams
Teacher Educator
Alabama A. & M. College
Normal, Alabama

Mr. Thomas H. Avery
Electronics Instructor
P. O. Box G-8
A. & T. College
Greensboro, North Carolina

Dr. L. W. Bonner
Head Teacher Trainer
Agricultural Education
Alabama A. & M. College
Normal, Alabama

Mr. Thomas J. Brooks
Instructor
Electricity and Electronics
352 24th Avenue, N.
Nashville, Tennessee

Mr. Nathan E. Brown
Instructor
Building Construction Technology
A. & T. College
Greensboro, North Carolina

Mr. T. Pete Chapman
Associate Professor
Trade and Industrial Teacher Education
Oklahoma State University
Stillwater, Oklahoma

Mr. William S. Cooper
Barbering Instructor
School of Industries
Virginia State College
Petersburg, Virginia

Mr. William Craig, Jr.
Sheet Metal Instructor
Virginia State College
Norfolk Division
Norfolk, Virginia

Mr. Leon E. Crowley
Radio and TV Instructor
Virginia State College
Petersburg, Virginia

Mr. Edward D. Hargrove
Assistant Professor
Industrial Education
1208 Ross Avenue
Greensboro, North Carolina

Dr. Abigail Hobson
Head
Home Economics Dept.
Alabama A. & M. College
Normal, Alabama

Miss Ola Hudson
300 25th Avenue, N.
Nashville, Tennessee

Mrs. Rosa McKissack
P. O. Box 745
Columbia, Tennessee

Mrs. Francis Miller
920 Pruitt
Bolivar, Tennessee

Mr. Alfred O. Pearson
Box 143
Dublin, Georgia

Mr. Sanford Perkins
Virginia State College
Norfolk Division
Norfolk, Virginia

Mr. Lewis Richards
Instructor
1911 Spencer Street
Greensboro, North Carolina

Mr. Issac Ridley
Radio and TV Instructor
School of Industries
Virginia State College
Petersburg, Virginia

Mrs. Cora Robinson
Supervising Teacher
Vocational Home Economics
Tuskegee Institute High
Tuskegee Institute, Alabama

Mr. G. G. Singleton
Director
School of Commerce
Virginia State College
Petersburg, Virginia

Mr. Benjamin White
Albany Area Vocational
Technical School
1800 S. Slappey Drive
Albany, Georgia

CONFERENCE

FOR

VOCATIONAL

AND

TECHNICAL

TEACHER

EDUCATORS

ON

The New Media of Instruction

Sponsored by

Division of Adult and Vocational Research
U. S. Office of Education in Cooperation with Tuskegee Institute

TUSKEGEE INSTITUTE

August 15-19, 1966

OBJECTIVES OF THE CONFERENCE

The general purposes of the conference are to stimulate interest in, and promote the utilization of the new media through a series of addresses, demonstrations, discussions, and small group work sessions. These activities will be carried out under the leadership of outstanding authorities in the fields of audio-visual education, and communication theory. The content of the program will be concerned with educational television, programmed instruction, 8 mm single concept films, filmstrips, tape recordings, slides opaque projections, overhead transparencies, and other media.

Meal Schedule -- Tompkins Hall

Breakfast	6:30-8:00
Lunch	11:30-1:00
Dinner	4:30-6:00

CONFERENCE FOR VOCATIONAL AND TECHNICAL TEACHER EDUCATORS
ON THE NEW MEDIA OF INSTRUCTION

Monday, August 15, 1966 — Building Willcox A. 2nd Floor, Div. of Arch.

FIRST GENERAL SESSION

Chairman -- Dean John A. Welch
School of Mechanical Industries

A.M.

9:00	Welcome to Tuskegee	Dr. A. P. Torrence Dean of Academic Affairs
	Introduction of Dr. David P. Barnard Coordinator-Consultant	Dr. W. Vincent Payne Conference Director
	Introduction of Dr. Henry A. Bern Consultant	Dr. B. D. Mayberry Dean of School of Agriculture
	Theories of Learning and Teaching and Their Relationship to the Utilization of Educational Media	
10:30	Rest Period	
10:45	Discussion or "Question and Answer" Period	
11:45	Group Photograph in Front of Booker T. Washington Monument	
12:00	Lunch -- Tompkins Hall	

SECOND GENERAL SESSION

Chairman -- Dr. David P. Barnard
Coordinator-Consultant

P.M.

1:30	Vocational Interest Seminars	Location
	Group I, Trade and Industry	Classroom
	Group II, Home Economics	Office No. 1
	Group III, Agriculture	Architectural Library
	Group IV, Business Education	Office No. 2

3:00	Rest Period	
3:15	Tour of Tuskegee Institute (Transportation will be furnished)	Mrs. Zelda B. Belton
5:00	Dinner -- Tompkins Hall	
7:00	Seminar Reports	
	Report of Group I	
	Report of Group II	
	Report of Group III	
	Report of Group IV	
8:30	Adjournment	

Tuesday, August 16, 1966

Building Wilcox A, 2nd Floor, Div. of Arch.

THIRD GENERAL SESSION

Chairman -- Dr. David P. Barnard
Coordinator-Consultant

A.M.

9:00	Introduction of Mr. C. Wesley Lambert Consultant	Dr. W. Vincent Payne Conference Director
	Educational Television	Mr. C. Wesley Lambert Consultant
10:30	Rest Period	
10:45	Discussion or "Question and Answer" Period	Mr. C. Wesley Lambert Consultant
12:00	Lunch -- Tompkins Hall	

P.M.

1:30	Educational Television Workshop	
3:00	Rest Period	
3:15	Vocational Interest Seminars	Location
	Group I, Trade and Industry	Classroom
	Group II, Home Economics	Office No. 1
	Group III, Agriculture	Architectural Library
	Group IV, Business Education	Office No. 2
5:00	Dinner -- Tompkins Hall	
7:00	Seminar Reports	
	Report of Group I	
	Report of Group II	
	Report of Group III	
	Report of Group IV	
8:30	Adjournment	

Wednesday, August 17, 1966

Building Willcox A, 2nd Floor, Div. of Arch.

FOURTH GENERAL SESSION

Chairman -- Dr. David P. Barnard
Coordinator-Consultant

A.M.

9:00	Introduction of Dr. Wesley C. Meierhenry	Dr. Queen E. Shootes Dean School of Home Economics and Food Administration
	Programmed Instruction	Dr. Wesley C. Meierhenry Consultant
10:00	Rest Period	
10:45	Discussion or "Question and Answer" Period	Dr. Wesley C. Meierhenry Consultant
12:00	Lunch -- Tompkins Hall	

P.M.

1:30	Introduction of Mr. W. Scott	Mr. A. O. Sherard Associate Conference Director
	Tape Recordings	Mr. Walter Scott Consultant
3:00	Rest Period	
3:15	Vocational Interest Seminars	Location
	Group I, Trade and Industry	Classroom
	Group II, Home Economics	Office No. 1
	Group III, Agriculture	Architectural Library
	Group IV, Business Education	Office No. 2
5:00	Dinner -- Thompkins Hall	
7:00	Seminar Report	
	Report of Group I	
	Report of Group II	
	Report of Group III	
	Report of Group IV	
8:30	Adjournment	

Thursday August 18, 1966

Building Willcox A, 2nd Floor, Div. of Arch.

FIFTH GENERAL SESSION

Chairman -- Dr. David P. Barnard
Coordinator-Consultant

9:00	Introduction of Mr. Robert R. Hardman Consultant	Mr. A. O. Sherard Associate Conference Dir.
	Use and Production of 2" x 2" Slides and Filmstrips	Mr. Robert R. Hardman Consultant
10:30	Rest Period	
10:45	Discussion or "Question and Answer" Period	Mr. Robert R. Hardman Consultant
12:00	Lunch -- Tompkins Hall	
P.M.		
1:30	8 mm Motion Picture Utilization and Production	Mr. Robert R. Hardman Consultant
3:00	Rest Period	
3:15	Vocational Interest Seminars	Location
	Group I, Trade and Industry	Classroom
	Group II, Home Economics	Office No. 1
	Group III, Agriculture	Architectural Library
	Group IV, Business Education	Office No. 2
5:00	Dinner -- Tompkins Hall	
7:00	Seminar Reports	
	Group I	
	Group II	
	Group III	
	Group IV	
8:30	Adjournment	

Friday, August 19, 1966

Building Willcox A, 2nd Floor, Div. of Arch.

SIXTH GENERAL SESSION

Chairman -- Dr. W. Vincent Payne
Conference Director

A.M.		
9:00	Opaque and Overhead Projection	Dr. David P. Barnard Coordinator-Consultant
10:30	Rest Period	
10:45	Demonstration of Production Techniques for Overhead Projectuals	Dr. David P. Barnard Coordinator-Consultant & Mr. Walter Scott, Consultant
12:00	Lunch -- Tompkins Hall	
P.M.		
1:30	Change, Technology and the New Media in Vocational Education	Dr. David P. Barnard Coordinator-Consultant
	Discussion or "Question and Answer" Period	
	Conference Evaluation	
	Presentation of Certificates	
4:00	Adjournment of Conference	

Consultants:

Dr. David P. Barnard, Chairman
Department of Audio-Visual Communications
Stout State University
Menomonie, Wisconsin

Dr. Henry A. Bern, Head
Research Department
Audio-Visual Center
Indiana University
Bloomington, Indiana

Mr. Robert R. Hardman
Coordinator of Photographic Services
Stout State University
Menomonie, Wisconsin

Mr. C. Wesley Lambert
Department of Educational Television
University of Florida
Gainsville, Florida

Dr. Wesley C. Meierhenry, Assistant Dean
Teachers College
University of Nebraska
Lincoln, Nebraska

Mr. Walter Scott, Director
Audio-Visual Education
Tuskegee Institute
Tuskegee Institute, Alabama

Conference Director:

Dr. W. Vincent Payne
Associate Professor of Industrial Education
School of Mechanical Industries
Tuskegee Institute
Tuskegee Institute, Alabama

Associate Conference Director:

Mr. Austell O. Sherard
Assistant Professor of Industrial Education
School of Mechanical Industries
Tuskegee Institute
Tuskegee Institute, Alabama

SUGGESTED GUIDELINES AND FORMAT FOR SEMINAR REPORTS

Conference for Vocational and Technical Teacher Educators in the New Media of Instruction

Circle One: Monday, Tuesday, Wednesday, Thursday

New Media Topic(s):_____

Vocational Interest Seminar:_____

Chairman:_____

Recorder:_____

Do not feel obligated to use the guidelines that follow -- they are suggestions only:

1. Summary of the discussion.

2. Conclusions reached as a result of the discussion.

3. Plans for implementation.

4. Possible deterrents to implementation.

DAILY EVALUATION SHEET

Conference for Vocational and Technical Teacher Educators in the New Media of Instruction

Circle One: Monday, Tuesday, Wednesday, Thursday

Please help us evaluate the Conference, and thus improve it, by providing "feedback" on the value to you, of today's activities.

Please check your answer in the appropriate column.

	Excellent	Good	Fair	Poor
I. Main Presentation by Consultant				
II. Discussion or "Question and Answer" Period or Workshop				
III. Vocational Interest Seminars				
IV. Seminar Reports				

Remarks:

Please do not sign your name. Leave sheet on front desk, or hand it to the Coordinator.

TOTAL CONFERENCE EVALUATION SHEET

Conference for Vocational and Technical Teacher Educators in the New Media of Instruction

Please help us evaluate the Conference by checking your answers in the appropriate column.

	HIGH 7		5		3		LOW 1
1. To what extent, did the Conference develop an awareness on your part of the availability and value of the new media of instruction?							
2. To what extent, did the Conference develop your ability to select and use, judiciously, the educational media in respect to accepted principles of teaching and learning?							
3. To what extent, did the Conference develop your ability to utilize the results of research conducted on the use and development of the new media in vocational and technical education?							

4. Did you have previous training and/or experience in the new media of instruction before the Conference?

5. What changes do you plan to implement "on the job" as a result of the Conference?

Comments:

Please do not sign your name. Leave sheet on front desk, or hand it to the Coordinator.

Summary of Participants' Evaluation of Daily Sessions

	Monday		Tuesday		Wednesday		Thursday		Friday	
	No.	%	No.	%	No.	%	No.	%	No.	%
Excellent	55	33	93	59	78	48	120	69	58	83
Good	81	49	62	39	78	48	49	28	10	14
Fair	22	14	3	2	6	3	5	3	2	3
Poor	7	4	0	0	1	1	0	0	0	0
Total responses for the four catefories	165	100	158	100	163	100	174	100	70	100

Summary of Total Conference Evaluation Sheet

Objective*	High 7		6		5		4		3		2		Low 1		
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	NO.	%	Total Responses
#1	26	61	6	14	5	12	1	2.5	4	8	1	2.5	0	0	43
#2	16	37	8	19	14	33	0	0	4	8	1	[illegible]	0	0	43
#3	14	33	9	22	9	22	3	7	5	12	1	2	1	2	42

*Objectives:

1. Develop an awareness on your part of the availability and value of the new media of instruction.

2. Develop your ability to select and use, judiciously, the educational media in respect to accepted principles of teaching and learning.

3. Develop your ability to utilize the results of research conducted on the use and development of the new media in vocational and technical education.

STATE ROSTER OF PARTICIPANTS

Conference for Vocational and Technical Teacher Educators in the New Media of Instruction

ALABAMA

1. Bearden, Mr. William W., Head
   Division of Industrial Education
   Tuskegee Institute
   Tuskegee Institute, Alabama
   Tel. No. 727-2000 Ext. 281

2. Cooper, Mr. W. E., Special Supervisor
   Agricultural Education
   Tuskegee Institute
   Tuskegee Institute, Alabama

3. Donald, Mr. E. L., Teacher Trainer
   Agricultural Education
   Tuskegee Institute
   Tuskegee Institute, Alabama
   Tel. No. 727-2000 Ext. 301

4. Downs, Mr. Oscar, Teacher Educator
   School of Mechanical Industries
   Tuskegee Institute
   Tuskegee Institute, Alabama

5. Hayden, Mr. Charlie W.
   Assistant State Supervisor
   Trades and Industrial Education
   Montgomery, Alabama
   Tel. No. 727-1868

6. Rankin, Mrs. Bennie Maye, Teacher Educator
   Home Economics Education
   Tuskegee Institute
   Tuskegee Institute, Alabama

7. Turner, Mrs. Bettye S., Special Supervisor
   Home Economics Education
   Tuskegee Institute
   Tuskegee Institute, Alabama
   Tel. No. 727-2183

8. Tzeng, Dr. John J.
   School of Education
   Tuskegee Institute
   Tuskegee Institute, Alabama
   Tel. No. 727-0251

ARKANSAS

9. Parker, Dr. Sellers J., Dean
   Div. of Agriculture &
   Technology
   Arkansas A. M. & N. College
   Pine Bluff, Arkansas

FLORIDA

10. Cotton, Mr. William H.
    Assistant Professor
    Vocational-Technical Inst.
    Florida A. & M. University
    Tallahassee, Florida
    Tel. No. 222-8030 Ext. 341

11. Hannon, Mr. Archie V.
    Technician
    Printing Technology
    Florida A. & M. University
    Tallahassee, Florida
    Tel. No. 222-8030 Ext. 239

12. Kirk, Mr. Howard W.
    Teacher Educator
    Distributive Education
    University of South Florida
    Tampa, Florida
    Tel. No. 345-1227

13. Perkins, Dr. Raymond P.
    Assistant Professor
    Technical & Adult Education
    University of Florida
    Gainesville, Florida
    Tel. No. 376-5675

14. Robinson, Mrs. Lillie M.
    Acting Dean
    Department of Home Economics
    Florida A. & M. University
    Tallahassee, Florida
    Tel. No. 222-8030 Ext. 422

15. Wilson, Mrs. Margaret F., Librarian
Vocational Technical Institute
Florida A. & M. University
Tallahassee, Florida
Tel. No. 222-8030 Ext. 235

GEORGIA

16. Brown, Mrs. Shirley W., Teacher Educator
Business Education
Monroe Div.-Albany Area Technical School
Albany, Georgia
Tel. No. 435-2058

17. Traylor, Sr., Mr. Amater Z.
Education Program Consultant
Trade & Industrial Education
State Department of Education
Atlanta, Georgia
Tel. No. 688-2390 Ext. 355

18. Williams, Mr. James O.
Itinerant Instructor
Vocational Agricultural Education
State Department of Education
Fort Valley Georgia
Tel. No. TA5-2204

19. Wilson, Mr. McKinley
Itinerant Teacher Trainer
Agriculture Education
Fort Valley State College
Fort Valley, Georgia
Tel. No. 825-5396

LOUISIANA

20. Bridges, Dr. Lonnie H., Professor
Agricultural Education & Economics
Southern University
Baton Rouge, Louisiana

21. Bridges, Dr. Raymond H., Head
Agricultural Education
Southern University
Baton Rouge, Louisiana
Tel. No. 774-1165

22. Gray, Mr. Earl, Supervising Teacher
Vocational Education
Southern University
Baton Rouge, Louisiana
Tel. No. 924-3996

23. Harrison, Mr. Nicholas S.
Teacher Trainer
Trade & Industrial Education
Baton Rouge, Louisiana
Tel. No. 775-4044

MARYLAND

24. Anderson, Mr. C. Raymond
Instructor
Business Education
University of Maryland
College Park, Maryland

MISSISSIPPI

25. Boykin, Dr. W. C., Head
Agricultural Education
Alcorn A. & M. College
Lorman, Mississippi
Tel. No. 420 Port Gibson

26. Hutchins, Mr. Walter L.
Itinerant Teacher Trainer
Agricultural Education
State Department of Education
Jackson, Mississippi
Tel. No. 859-3647

27. Woodard, Mr. Fred O.
State Teacher Trainer
Trade & Industrial Education
State Department of Education
Jackson, Mississippi

NEVADA

28. Wilcox, Mr. LeRoy T.
State Supervisor
Vocational-Technical & Adult Ed.
State Department of Education
Carson City, Nevada
Tel. No. 882-1405

NORTH CAROLINA

29. Bell, Dr. Arthur P.
Teacher Trainer
Agricultural Education
A. & T. College
Greensboro, North Carolina
Tel. No. 273-1771 Ext. 232

30. Holloway, Mr. Major B.
Teacher Educator
Automotive Technology
A. & T. College
Greensboro, North Carolina
Tel. No. 273-7200

31. Johnson, Mrs. E. Bernice
Teacher Educator
Home Economics Education
A. & T. College
Greensboro, North Carolina

OKLAHOMA

32. Brown, Mr. Bob, Assistant
State Supervisor
Vocational Business and Office Ed.
State Board
Stillwater, Oklahoma

33. Phillips, Mr. Donald S., Chairman
Department of Technical Education
Oklahoma State University
Stillwater, Oklahoma
Tel. No. FR2-6211

PUERTO RICO

34. deRuiz, Mrs. Pilar Cuevas
Subject Matter Technician
Home Economics
Department of Education
Rio Piedras, Puerto Rico

SOUTH CAROLINA

35. Holly, Mr. Olin R., Assistant
Teacher Trainer
Trade & Industrial Education
South Carolina State College
Orangeburg, South Carolina
Tel. No. 534-6560 Ext. 244

36. Murvin, Mr. Benjamin F.
Teacher Trainer
Agricultural Education
South Carolina State College
Orangeburg, South Carolina
Tel. No. 534-6560 Ext. 267

TENNESSEE

37. Adams, Dr. Ozie L., Director
Extension and Field Services
Tennessee A. & I State Univ.
Nashville, Tennessee
Tel. No. 242-4311 Ext. 295

38. Alexander, Miss Christine
Itinerant Teacher Trainer
Tennessee A. & I. State Univ.
Nashville, Tennessee
Tel. No. 242-4311 Ext. 296

39. Gray, Mr. Ezell A.,
State Supervisor
Work Study Programs
Room 205, Cordell Hull Building
Nashville, Tennessee

TEXAS

40. Battle, Mr. Joseph
Teacher Educator
Audio-Visual Education
Prairie View A. & M. College
Prairie View, Texas
Tel. No. UL-73586

41. Henry, Mr. Marion, Head
Department of Audio-Visual Ed.
Prairie View College
Prairie View, Texas
Tel. No. 713-UL-7-3409

VIRGINIA

42. Fauntleroy, Mr. H. E.
Itinerant Teacher Trainer
Trade & Industrial Education
Virginia State College
Petersburg, Virginia
Tel. No. 733-8111 Ext. 233

43. Hopkins, Mr. Morton B.
Teacher Educator
Industrial & Vocational Ed.
Virginia State College,
Norfolk, Virginia
Tel. No. UL3-5773

44. Morton, Miss Naomi
Teacher Educator
Business Education
Virginia State College
Norfolk, Virginia
Tel. No. 623-8590

45. Mundon, Miss Ella F., Teacher Educator
Business Education
Virginai State College
Petersburg, Virginia
Tel. No. 733-7812

VIRGIN ISLANDS

46. Bastian, Mr. Calvin, Director
Library Services & Instructional Materials
Department of Education
St. Thomas, Virgin Islands

WEST VIRGINIA

47. Breed, Mr. Nathan
Director of Technical Programs
West Virginia University
Parkersburg, West Virginia
Tel. No. Fr2-6211 Ext. 7261